Abstract

An object of the present invention is to provide a method for manufacturing a thin film transistor which enables heat treatment aimed at improving characteristics of a gate insulating film such as lowering of an interface level or reduction in a fixed charge without causing a problem of misalignment in patterning due to expansion or shrinkage of glass. A method for manufacturing a thin film transistor of the present invention comprises the steps of heat-treating in a state where at least a gate insulating film is formed over a semiconductor film on which element isolation is not performed, simultaneously isolating the gate insulating film and the semiconductor film into an element structure, forming an insulating film covering a side face of an exposed semiconductor film, thereby preventing a short-circuit between the semiconductor film and a gate electrode. Expansion or shrinkage of a glass substrate during the heat treatment can be prevented from affecting misalignment in patterning since the gate insulating film and the semiconductor film are simultaneously processed into element shapes after the heat treatment.